

CHAPTER 3

TROUBLESHOOTING AND DESTRUCTION

Commanders and unit armorers are responsible for the organizational and direct support maintenance of weapons and for the destruction of weapons when necessary. Soldiers are responsible for always keeping their weapons clean and operational in training and in combat and, therefore, should be issued an operator's technical manual and cleaning equipment for their assigned weapons.

3-1. STOPPAGES

A stoppage is a failure of an automatic or semiautomatic firearm to complete the cycle of operation. The firer can apply immediate or remedial action to clear the stoppage. Some stoppages cannot be cleared by immediate or remedial action and may require weapon repair to correct the problem. A complete understanding of how the weapon functions is an integral part of applying immediate action procedures.

a. **Immediate Action.** Immediate action involves quickly applying a possible correction to reduce a stoppage without performing troubleshooting procedures to determine the actual cause. The key word **SPORTS** will help the firer remember the steps in order during a live-fire exercise. To apply immediate action, the soldier:

- Slaps gently upward on the magazine to ensure it is fully seated, and the magazine follower is not jammed ([see note](#)).
- Pulls the charging handle fully to the rear.
- Observes for the ejection of a live round or expended cartridge. (If the weapon fails to eject a cartridge, perform remedial action.)
- Releases the charging handle (do not ride it forward).
- Taps the forward assist assembly to ensure bolt closure.
- Squeezes the trigger and tries to fire the rifle.

Only apply immediate action once for a stoppage. If the rifle fails to fire a second time for the same malfunction inspect the weapon to determine the cause of the stoppage or malfunction and take the appropriate remedial action outlined below.

NOTE: When slapping up on the magazine, be careful not to knock a round out of the magazine into the line of the bolt carrier, causing more problems. Slap only hard enough to ensure the magazine is fully seated. Ensure that the magazine is locked into place by quickly pulling down on the magazine.

b. **Remedial Action.** Remedial action is the continuing effort to determine the cause for a stoppage or malfunction and to try to clear the stoppage once it has been identified. To apply the corrective steps for remedial action, first try to place the weapon on SAFE, then remove the magazine, lock the bolt to the rear, and place the weapon on safe (if not already done).

NOTE: A bolt override may not allow the weapon to be placed on SAFE.

3-2. MALFUNCTIONS

Malfunctions are caused by procedural or mechanical failures of the rifle, magazine, or ammunition. Pre-firing checks and serviceability inspections identify potential problems before they become malfunctions. This paragraph describes the primary categories of malfunctions.

a. **Failure to Feed, Chamber, or Lock.** A malfunction can occur when loading the rifle or during the cycle of operation. Once the magazine has been loaded into the rifle, the forward movement of the bolt carrier group could lack enough force (generated by the expansion of the action spring) to feed, chamber, or lock the bolt ([Figure 3-1](#)).

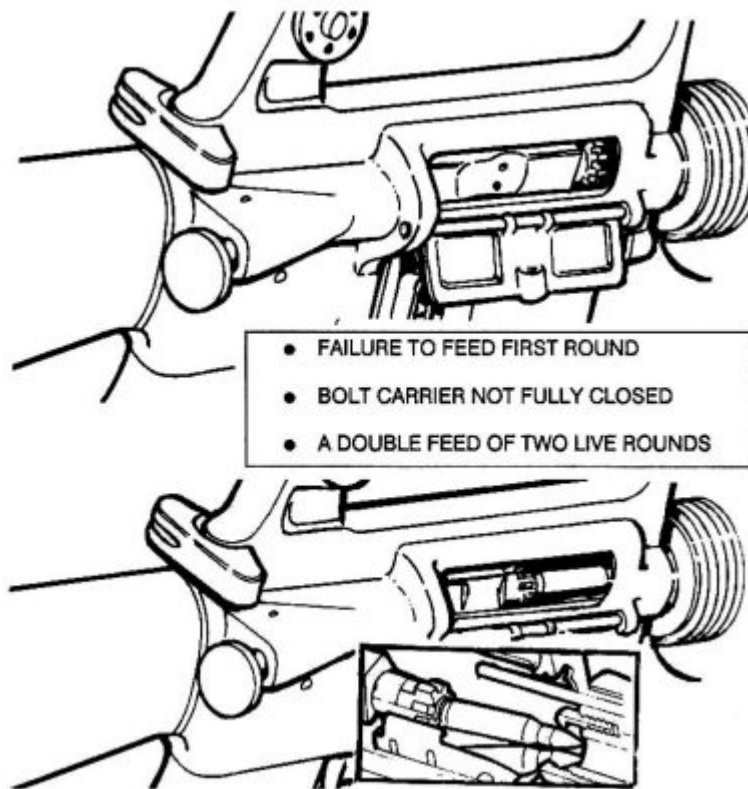


Figure 3-1. Failure to feed, chamber, or lock.

(1) **Probable Causes.** The cause could be the result of one or more of the following:

- Excess accumulation of dirt or fouling in and around the bolt and bolt carrier.
- Defective magazine (dented, bulged, or a weak magazine spring).
- Improperly loaded magazine.
- Defective round (projectile forced back into the cartridge case, which could result in a stubbed round or the base of the previous cartridge could be separated, leaving the remainder in the chamber).
- Damaged or broken action spring.
- Exterior accumulation of dirt in the lower receiver extension.
- Fouled gas tube resulting in short recoil.
- A magazine resting on the ground or pushed forward could cause an improper lock.

(2) **Corrective Action.** Applying immediate action usually corrects the malfunction. To avoid the risk of further jamming, the firer should watch for ejection of a cartridge and ensure that the upper receiver is free of any loose rounds. If immediate action fails to clear the malfunction, remedial action must be taken. The carrier should not be forced. If resistance is encountered, which can occur with an unserviceable round, the bolt should be locked to the rear, the magazine removed, and the malfunction cleared. For example, a bolt override is when a cartridge has wedged itself between the bolt and charging handle. The best way to correct this problem is by-

- Ensuring the charging handle is pushed forward and locked in place.
- Securing the rifle and pulling the bolt to the rear until the bolt seats completely into the buffer well.
- Turning the rifle upright and allowing the overridden cartridge to fall out.

b. **Failure to Fire Cartridge.** This is a failure of a cartridge to fire despite the fact that a round has been chambered, the trigger pulled, and the sear released the hammer. This occurs when the firing pin fails to strike the primer with enough force or when the ammunition is defective.

(1) **Probable Causes.** Excessive carbon buildup on the firing pin ([Figure 3-2, A](#)) is often the cause, because the full forward travel of the firing pin is restricted. A defective or worn firing pin can give the same results. Inspection of the ammunition could reveal a shallow indentation or no mark on the primer, indicating a firing

pin malfunction (Figure 3-2, B). Cartridges that show a normal indentation on the primer, but did not fire indicate faulty ammunition.

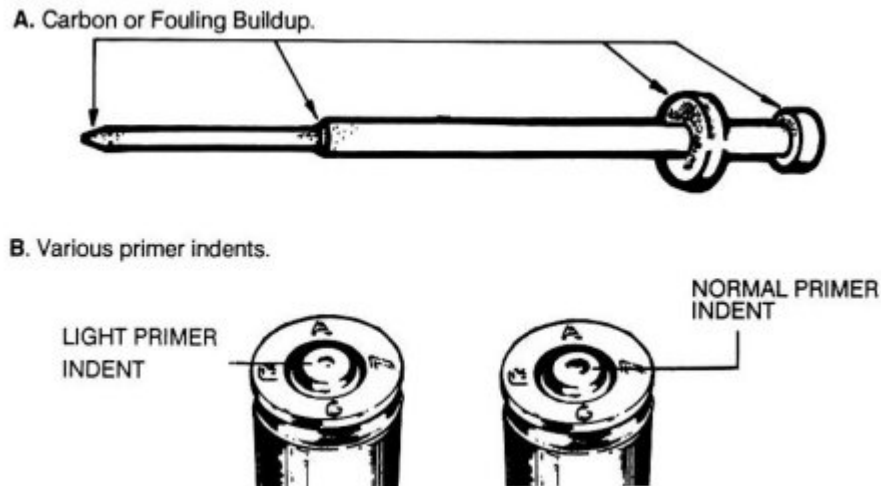


Figure 3-2. Failure to fire.

(2) **Corrective Action.** If the malfunction continues, the firing pin, bolt, carrier, and locking lug recesses of the barrel extension should be inspected, and any accumulation of excessive carbon or fouling should be removed. The firing pin should also be inspected for damage. Cartridges that show a normal indentation on the primer, but failed to fire could indicate a bad ammunition lot. Those that show a complete penetration of the primer by the firing pin could also indicate failure of the cartridge to fully seat in the chamber.

NOTE: If the round is suspected to be faulty, it is reported and returned to the agency responsible for issuing ammunition.

WARNING

If an audible "POP" or reduced recoil occurs during firing, immediately cease-fire. This POP or reduced recoil could be the result of a round being fired without enough force to send the projectile out of the barrel. Do not apply immediate action. Remove the magazine, lock the bolt to the rear, and place the selector lever in the safe position. Visually inspect the bore to ensure a projectile is not lodged in the barrel. If a projectile is lodged in the barrel, do not try to remove it. Turn the rifle in to the armorer.

c. **Failure to Extract.** A failure to extract results when the cartridge case remains in the chamber of the rifle. While the bolt and bolt carrier could move rearward only a short distance, more commonly the bolt and bolt carrier recoil fully to the rear, leaving the cartridge case in the chamber. A live round is then forced into the base of the cartridge case as the bolt returns in the next feed cycle. This malfunction is one of the hardest to clear.

WARNING

A failure to extract is considered an extremely serious malfunction, requiring the use of tools to clear. A live round could be left in the chamber and accidentally discharged. If a second live round is fed into the primer of the chambered live round, the rifle could explode and cause personal injury. This malfunction must be properly identified and reported. Failures to eject should not be reported as extraction failures.

(1) **Probable Cause.** Short recoil cycles and fouled or corroded rifle chambers are the most common causes of failures to extract. A damaged extractor or a weak or broken extractor spring can also cause this malfunction.

(2) **Corrective Action.** The severity of a failure to extract determines the corrective action procedures. If the bolt has moved rearward far enough to strip a live round from the magazine in its forward motion, the bolt and carrier must be locked to the rear. The magazine and all loose rounds must be removed before clearing the stoppage. Usually, tapping the butt of the rifle on a hard surface causes the cartridge to fall out of the chamber. However, if the cartridge case is ruptured, it can be seized. When this occurs, a cleaning rod can be inserted into the bore from the muzzle end. The cartridge case can be forced from the chamber by tapping the cleaning rod against the inside base of the fired cartridge. If cleaning and inspecting the mechanism and chamber reveals no defects but failures to extract persist, the extractor and extractor spring should be replaced. If the chamber surface is damaged, the entire barrel must be replaced.

d. **Failure to Eject.** Ejection of a cartridge is an element in the cycle of functioning of the rifle, regardless of the mode of fire. A malfunction occurs when the cartridge is not ejected through the ejection port and either remains partly in the chamber or becomes jammed in the upper receiver as the bolt closes. When the firer initially clears the rifle, the cartridge could strike an inside surface of the receiver and bounce back into the path of the bolt.

(1) **Probable Cause.** The cartridge must extract before it can eject. Failures to eject can also be caused by a buildup of carbon or fouling on the ejector spring or extractor, or from short recoil. Short recoil is usually due to a buildup of fouling in the carrier mechanism or gas tube, which could result in many failures to include a failure to eject. Resistance caused by a carbon-coated or corroded chamber can impede the extraction, and then the ejection of a cartridge.

(2) **Corrective Action.** While retraction of the charging handle usually frees the cartridge and permits removal, the charging handle must not be released until the position of the next live round is determined. If another live round has been sufficiently stripped from the magazine or remains in the chamber, then the magazine and all live rounds could also require removal before the charging handle can be released. If several malfunctions occur and are not corrected by cleaning and lubricating, the ejector spring, extractor spring, and extractor should be replaced.

e. **Other Malfunctions.** The following paragraphs describe some other malfunctions that can occur.

(1) The bolt fails to remain in a rearward position after the last round in the magazine is fired. Check for a bad magazine or short recoil.

(2) The bolt fails to lock in the rearward position when the bolt catch has been engaged. Check bolt catch; turn in to unit armorer.

(3) The weapon fires two or more rounds when the trigger is pulled and the selection lever is in the SEMI position. This indicates a worn sear, cam, or disconnecter. Turn in to armorer to repair and replace trigger group parts as required.

(4) The trigger fails to pull or return after release with the selector set in a firing position. This indicates that the trigger pin (A, [Figure 3-3](#)) has backed out of the receiver or the hammer spring is broken. Turn in to armorer to replace or repair.

- (5) The magazine fails to lock into the magazine well (B, [Figure 3-3](#)). Check the magazine and magazine catch for damage. Turn in to armorer to adjust the catch; replace as required.
- (6) Any part of the bolt carrier group fails to function (C, [Figure 3-3](#)). Check for incorrect assembly of components. Correctly clean and assemble the bolt carrier group, or replace damaged parts.
- (7) The ammunition fails to feed from the magazine (D, [Figure 3-3](#)). Check for damaged magazine. A damaged magazine could cause repeated feeding failures and should be turned in to the armorer or exchanged.

NOTE:

Additional technical information on troubleshooting malfunctions and replacing components is contained in the organizational and direct support maintenance publications and manuals.

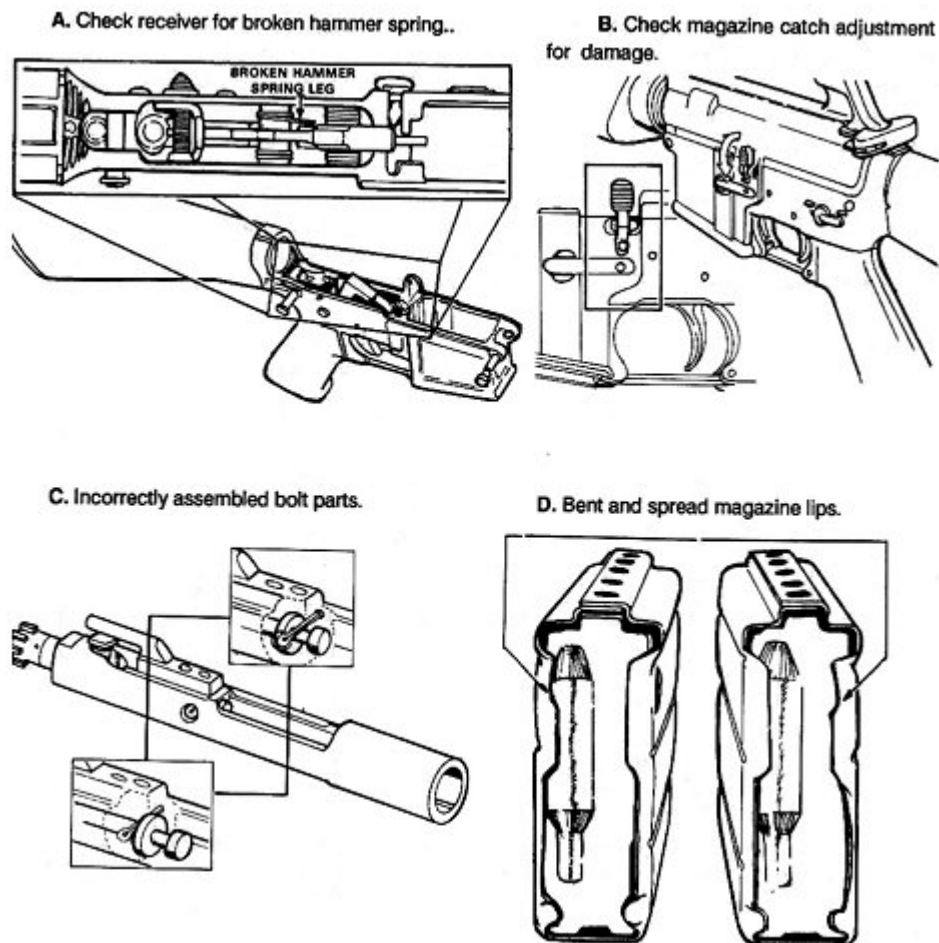


Figure 3-3. Other possible malfunctions.

3-3. DESTRUCTION PROCEDURES

Only on the authority of the unit commander, IAW orders or policies established by the Army, may rifles subject to capture or abandonment in the combat zone be destroyed. The destruction of equipment is reported through regular command channels.

- a. **Means of Destruction.** Certain procedures outlined require the use of explosives and incendiary grenades. Issue of these and related principles and specific conditions under which destruction is effected, are command decisions. Of the several means of destruction, the following apply:

- (1) **Mechanical.** Requires axe, pick mattock, sledgehammer, crowbar, or other heavy implement.

- (2) **Burning.** Requires gasoline, oil, incendiary grenades, and other flammable materials, or welding or cutting torch.
- (3) **Demolition.** Requires suitable explosives or ammunition. Under some circumstances, hand grenades can be used.
- (4) **Disposal.** Requires burying in the ground, dumping in streams or marshes, or scattering so widely as to preclude recovery of essential parts.

NOTE: The same parts should be destroyed on all like materiel, including spare parts, so that the enemy cannot rebuild one complete unit from several damaged units. If destruction is directed, appropriate safety precautions must be observed.

b. **Field-Expedient Methods.** If destruction of the individual rifle must be performed to prevent enemy use, the rifle must be damaged so it cannot be restored to a usable condition. Expedient destruction requires that key operational parts be separated from the rifle or damaged beyond repair. Priority is given in the following order:

- **FIRST.** Bolt carrier group: removed and discarded or hidden.
- **SECOND.** Upper receiver group: separated and discarded or hidden.
- **THIRD.** Lower receiver group: separated and discarded or hidden.